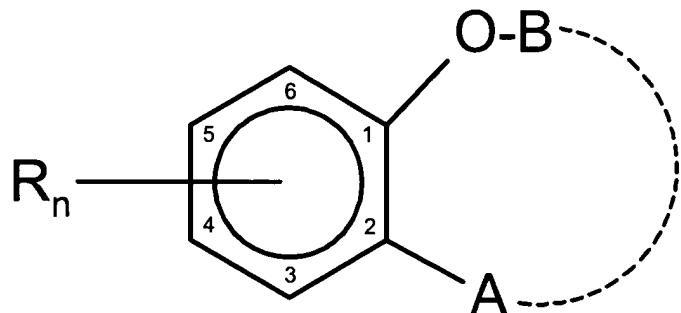


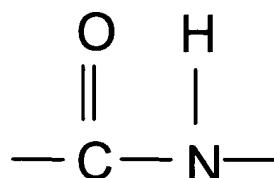
1. A process for promoting weight loss in mammals by the administration of a therapeutically effective amount of one or more chemical compositions defined as:

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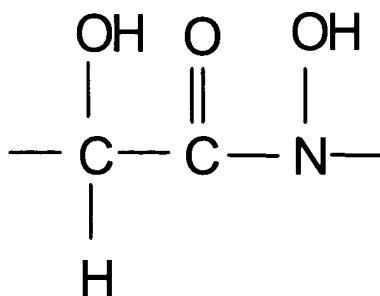
10 Wherein "R" represents C₁-C₄ alkoxy, with the provision the R is in the 4 or 5 ring position;
Wherein "n" represents one of the integers 0, 1 or 2;
Wherein "B" represents H and "A" represents -OH, -NH₂ or NHCR', where R' denotes C₁-C₄ alkyl; and "B A" represents

15



or

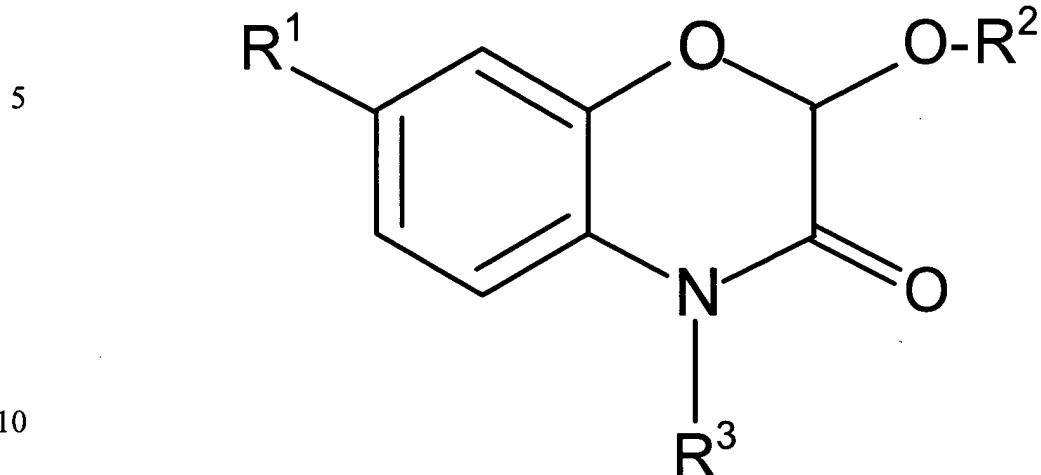
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25

or pharmaceutically acceptable salts thereof.

2. A process as defined in claim 1, further comprising the administration of a therapeutically effective amount of one or more chemical compositions defined as::



Wherein "R¹" is selected from the group consisting of H and OCH₃;

Wherein "R²" is selected from the group consisting of H and Glucose (as a glucoside)

Wherein "R³" is selected from the group consisting of H, OH, and OCH₃; or
pharmaceutically acceptable salts thereof.

3. A process as defined in claim 1, wherein said administered chemical composition comprises a daily dosage of between about 5 mcg and about 60 mg.

20 4. A process as defined in claim 1, wherein the administered chemical composition comprises a daily dosage of 15 mg.

5. A process as defined in claim 1, wherein at least one of said chemical compositions is obtained from one or more monocotyledonous plants selected from the group consisting of corn, wheat, barley, rye, oats, rice, sorghum, millet, bamboo, Job's Tears, barley-like grasses, and wild grasses, by growing the plant to an immature life history stage
5 and harvesting the plant.

6. A process as defined in claim 5, wherein said harvested plant is dried.

7. A process as defined in claim 6, wherein said harvested plant is dried at a
10 temperature in the range of between about 40°C and about 45°C.

8. A process as defined in claim 6, wherein said dried harvested plant contains phenols in total amounts greater than 17.0 mg/gm (dry weight).

15 9. A process as defined in claim 6, wherein said dried harvested plant contains combined amounts of 4-hydroxycinnamic acid and 4-hydroxy-3-methoxycinnamic acid totaling no more than 1.5 mg/gm (dry weight).

10. A process as defined in claim 5, wherein said harvested plant is immature
20 corn, *Zea mays*.

11. A process as defined in claim 10, wherein said immature corn has been grown to a height between about 45 centimeters and about 122 centimeters.

25 12. A process as defined in claim 10, wherein said immature corn has been grown to a height that does not exceed between about 30 centimeters and about 45 centimeters.

13. A process as defined in claim 10, wherein said immature corn has been grown for less than ten weeks after planting.

14. A process as defined in claim 1, wherein said chemical composition is administered in a manner selected from the group consisting of: (1) orally, in the form of tablets, capsules, suspensions, solutions and other means suitable for ingestion, including sublingual dosage forms; (2) intranasal administration; (3) transmucosal administration; (4) parenteral injection, in the form of subcutaneous, intramuscular, intravenous; (5) implant for sustained release; and (6) transdermal patch.

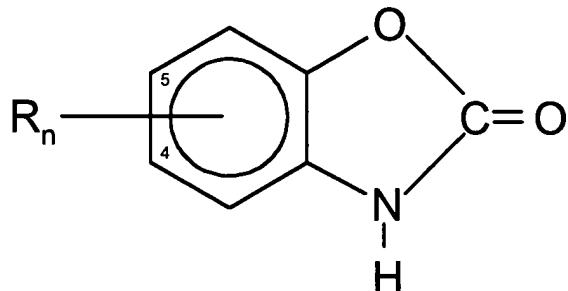
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15. A process as defined in claim 1, wherein therapeutically effective amounts of said chemical composition further comprise adjunctive therapy for a condition selected from the group consisting of arthritis, sleep apnea, fibromyalgia, diabetes, and hyperglycemia.

15

16. A process for promoting weight loss in mammals by the administration of a therapeutically effective amount of one or more chemical compositions defined as:

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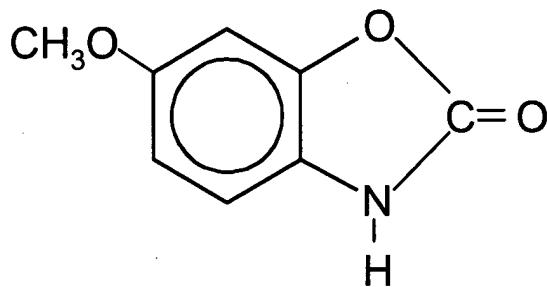
Wherein "R" represents C₁-C₄ alkoxy, with stipulation that R is in the 4 or 5 ring position;

10 Wherein "n" represents one of the integers 0, 1 or 2;

or pharmaceutically acceptable salts thereof.

17. A process as defined in claim 16, wherein one of said chemical compositions comprise 6-methoxy-2,3-benzoxazolinone defined as:

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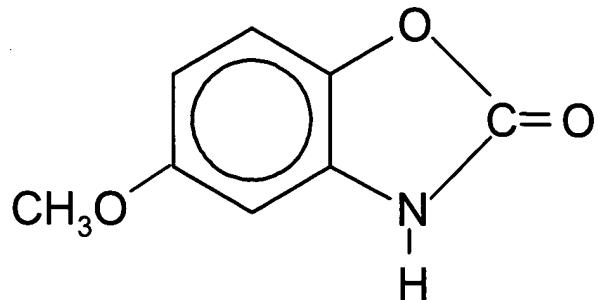


20

or pharmaceutically acceptable salts thereof.

18. A process as defined in claim 16, wherein one of said chemical compositions comprise 5-methoxy-2,3-benzoxazolinone defined as:

5



or pharmaceutically acceptable salts thereof.

10

19. A process as defined in claim 18, wherein said administered chemical composition comprises a daily dosage of between about 5 mcg and about 60 mg.

15

20. A process as defined in claim 17, wherein the administered chemical composition comprises a daily dosage of 15 mg.

20

21. A process as defined in claim 16, wherein at least one of said chemical compositions is obtained from one or more monocotyledonous plants selected from the group consisting of corn, wheat, barley, rye, oats, rice, sorghum, millet, bamboo, Job's Tears, barley-like grasses, and wild grasses, by growing the plant to an immature life history stage and harvesting the plant.

22. A process as defined in claim 21, wherein said harvested plant is dried.

25

23. A process as defined in claim 22, wherein said harvested plant is dried at a temperature in the range of between about 40°C and about 45°C.

5 24. A process as defined in claim 22, wherein said dried harvested plant contains phenols in total amounts greater than 17.0 mg/gm (dry weight).

25. A process as defined in claim 22, wherein said dried harvested plant contains combined amounts of 4-hydroxycinnamic acid and 4-hydroxy-3-methoxycinnamic acid totaling no more than 1.5 mg/gm (dry weight).

10

26. A process as defined in claim 21, wherein said harvested plant is immature corn, *Zea mays*.

15

27. A process as defined in claim 26, wherein said immature corn has been grown to a height between about 45 centimeters and about 122 centimeters.

28. A process as defined in claim 26, wherein said immature corn has been grown to a height that does not exceed between about 30 centimeters and about 45 centimeters.

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29. A process as defined in claim 26, wherein said immature corn has been grown for less than ten weeks after planting.

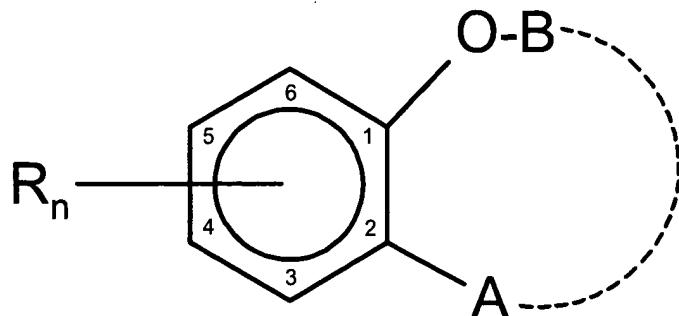
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30. A process as defined in claim 16, wherein said chemical composition is administered in a manner selected from the group consisting of: (1) orally, in the form of tablets, capsules, suspensions, solutions and other means suitable for ingestion, including sublingual dosage forms; (2) intranasal administration; (3) transmucosal administration; (4) 5 parenteral injection, in the form of subcutaneous, intramuscular, intravenous; (5) implant for sustained release; and (6) transdermal patch.

31. A process as defined in claim 16, wherein therapeutically effective amounts of said chemical composition further comprise adjunctive therapy for a condition selected 10 from the group consisting of arthritis, sleep apnea, fibromyalgia, diabetes, and hyperglycemia.

32. A process for suppressing appetite in mammals by the administration of a therapeutically effective amount of one or more chemical compositions defined as:

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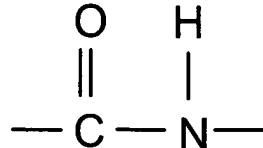


Wherein "R" represents C_1-C_4 alkoxy, with the provision the R is in the 4 or 5 ring position;

10 Wherein "n" represents one of the integers 0, 1 or 2;

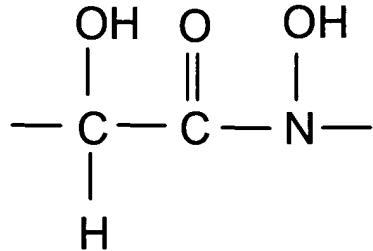
Wherein "B" represents H and "A" represents $-OH$, $-NH_2$ or $NHCR'$, where R' denotes C_1-C_4 alkyl; and "B A" represents

15



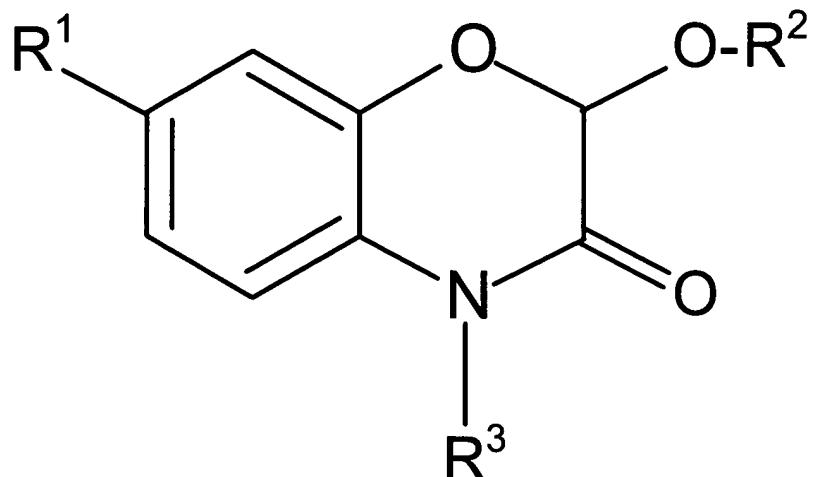
or

20



25 or pharmaceutically acceptable salts thereof.

33. A process as defined in claim 32, further comprising the administration of a therapeutically effective amount of one or more chemical compositions defined as::



Wherein "R¹" is selected from the group consisting of H and OCH₃;

Wherein "R²" is selected from the group consisting of H and Glucose (as a glucoside)

Wherein "R³" is selected from the group consisting of H, OH, and OCH₃; or

15 pharmaceutically acceptable salts thereof.

34. A process as defined in claim 32, wherein said administered chemical composition comprises a daily dosage of between about 5 mcg and about 60 mg.

20 35. A process as defined in claim 32, wherein the administered chemical composition comprises a daily dosage of 15 mg.

25

36. A process as defined in claim 32, wherein at least one of said chemical compositions is obtained from one or more monocotyledonous plants selected from the group consisting of corn, wheat, barley, rye, oats, rice, sorghum, millet, bamboo, Job's Tears, barley-like grasses, and wild grasses, by growing the plant to an immature life history stage 5 and harvesting the plant.

37. A process as defined in claim 36, wherein said harvested plant is dried.

38. A process as defined in claim 37, wherein said harvested plant is dried at a 10 temperature in the range of between about 40°C and about 45°C.

39. A process as defined in claim 37, wherein said dried harvested plant contains phenols in total amounts greater than 17.0 mg/gm (dry weight).

15 40. A process as defined in claim 37, wherein said dried harvested plant contains combined amounts of 4-hydroxycinnamic acid and 4-hydroxy-3-methoxycinnamic acid totaling no more than 1.5 mg/gm (dry weight).

20 41. A process as defined in claim 36, wherein said harvested plant is immature corn, *Zea mays*.

42. A process as defined in claim 41, wherein said immature corn has been grown to a height between about 45 centimeters and about 122 centimeters.

25 43. A process as defined in claim 41, wherein said immature corn has been grown to a height that does not exceed between about 30 centimeters and about 45 centimeters.

44. A process as defined in claim 41, wherein said immature corn has been grown for less than ten weeks after planting.

45. A process as defined in claim 32, wherein said chemical composition is 5 administered in a manner selected from the group consisting of: (1) orally, in the form of tablets, capsules, suspensions, solutions and other means suitable for ingestion, including sublingual dosage forms; (2) intranasal administration; (3) transmucosal administration; (4) parenteral injection, in the form of subcutaneous, intramuscular, intravenous; (5) implant for sustained release; and (6) transdermal patch.

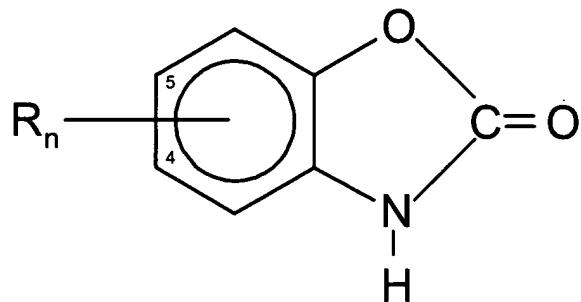
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46. A process as defined in claim 32, wherein therapeutically effective amounts of said chemical composition further comprise adjunctive therapy for a condition selected from the group consisting of arthritis, sleep apnea, fibromyalgia, diabetes, and hyperglycemia.

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47. A process for suppressing appetite in mammals by the administration of a therapeutically effective amount of one or more chemical compositions defined as:

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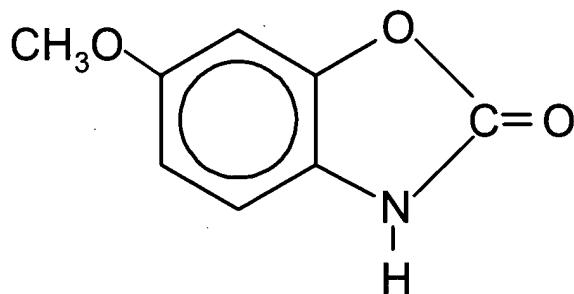
Wherein "R" represents C_1-C_4 alkoxy, with stipulation that R is in the 4 or 5 ring position;

10 Wherein "n" represents one of the integers 0, 1 or 2;

or pharmaceutically acceptable salts thereof.

48. A process as defined in claim 47, wherein one of said chemical compositions comprise 6-methoxy-2,3-benzoxazolinone defined as:

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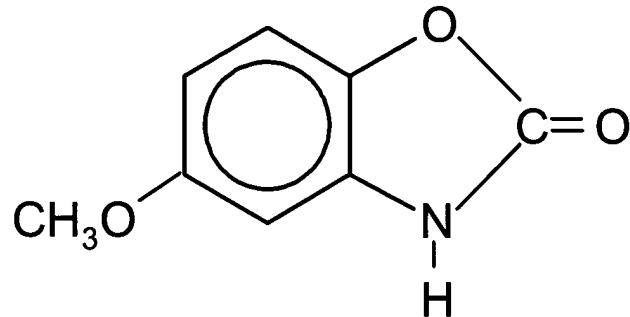
20

or pharmaceutically acceptable salts thereof.

25

49. A process as defined in claim 47, wherein one of said chemical compositions comprise 5-methoxy-2,3-benzoxazolinone defined as:

5



or pharmaceutically acceptable salts thereof.

10

50. A process as defined in claim 47, wherein said administered chemical composition comprises a daily dosage of between about 5 mcg and about 60 mg.

15

51. A process as defined in claim 47, wherein the administered chemical composition comprises a daily dosage of 15 mg.

20

52. A process as defined in claim 47, wherein at least one of said chemical compositions is obtained from one or more monocotyledonous plants selected from the group consisting of corn, wheat, barley, rye, oats, rice, sorghum, millet, bamboo, Job's Tears, barley-like grasses, and wild grasses, by growing the plant to an immature life history stage and harvesting the plant.

53. A process as defined in claim 52, wherein said harvested plant is dried.

25

54. A process as defined in claim 53, wherein said harvested plant is dried at a temperature in the range of between about 40°C and about 45°C.

5 55. A process as defined in claim 53, wherein said dried harvested plant contains phenols in total amounts greater than 17.0 mg/gm (dry weight).

56. A process as defined in claim 53, wherein said dried harvested plant contains combined amounts of 4-hydroxycinnamic acid and 4-hydroxy-3-methoxycinnamic acid totaling no more than 1.5 mg/gm (dry weight).

10

57. A process as defined in claim 52, wherein said harvested plant is immature corn, *Zea mays*.

15

58. A process as defined in claim 57, wherein said immature corn has been grown to a height between about 45 centimeters and about 122 centimeters.

59. A process as defined in claim 57, wherein said immature corn has been grown to a height that does not exceed between about 30 centimeters and about 45 centimeters.

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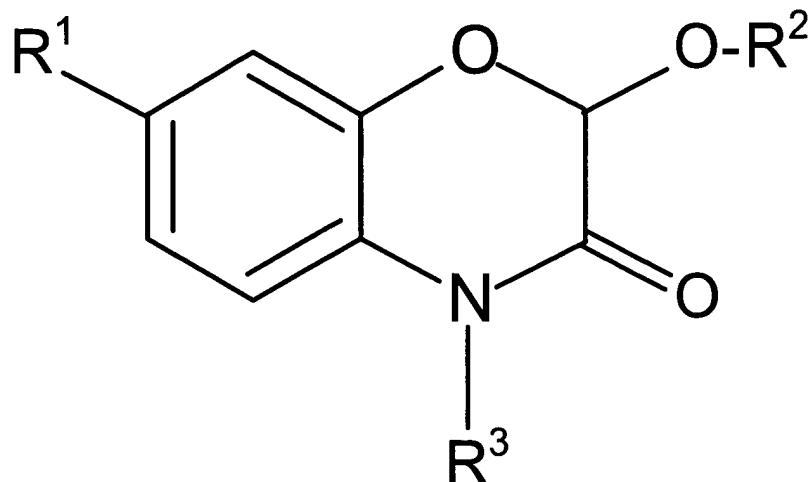
60. A process as defined in claim 67, wherein said immature corn has been grown for less than ten weeks after planting.

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61. A process as defined in claim 47, wherein said chemical composition is administered in a manner selected from the group consisting of: (1) orally, in the form of tablets, capsules, suspensions, solutions and other means suitable for ingestion, including sublingual dosage forms; (2) intranasal administration; (3) transmucosal administration; (4) 5 parenteral injection, in the form of subcutaneous, intramuscular, intravenous; (5) implant for sustained release; and (6) transdermal patch.

62. A process as defined in claim 47, wherein therapeutically effective amounts of said chemical composition further comprise adjunctive therapy for a condition selected 10 from the group consisting of arthritis, sleep apnea, fibromyalgia, diabetes, and hyperglycemia.

63. A process for promoting weight loss in a mammal by the administration of a therapeutically effective amount of one or more chemical compositions defined as:



Wherein "R¹" is selected from the group consisting of H and OCH₃;

Wherein "R²" is selected from the group consisting of H and Glucose (as a glucoside)

Wherein "R³" is selected from the group consisting of H, OH, and OCH₃; or

15 pharmaceutically acceptable salts thereof.

64. A process as defined in claim 63, wherein said administered chemical composition comprises a daily dosage of between about 5 mcg and about 60 mg.

20 65. A process as defined in claim 63, wherein the administered chemical composition comprises a daily dosage of 15 mg.

66. A process as defined in claim 63, wherein at least one of said chemical compositions is obtained from one or more monocotyledonous plants selected from the group consisting of corn, wheat, barley, rye, oats, rice, sorghum, millet, bamboo, Job's Tears, barley-like grasses, and wild grasses, by growing the plant to an immature life history stage 5 and harvesting the plant.

67. A process as defined in claim 66, wherein said harvested plant is dried.

68. A process as defined in claim 67, wherein said harvested plant is dried at a 10 temperature in the range of between about 40°C and about 45°C.

69. A process as defined in claim 67, wherein said dried harvested plant contains phenols in total amounts greater than 17.0 mg/gm (dry weight).

15 70. A process as defined in claim 67, wherein said dried harvested plant contains combined amounts of 4-hydroxycinnamic acid and 4-hydroxy-3-methoxycinnamic acid totaling no more than 1.5 mg/gm (dry weight).

20 71. A process as defined in claim 66, wherein said harvested plant is immature corn, *Zea mays*.

72. A process as defined in claim 71, wherein said immature corn has been grown to a height between about 45 centimeters and about 122 centimeters.

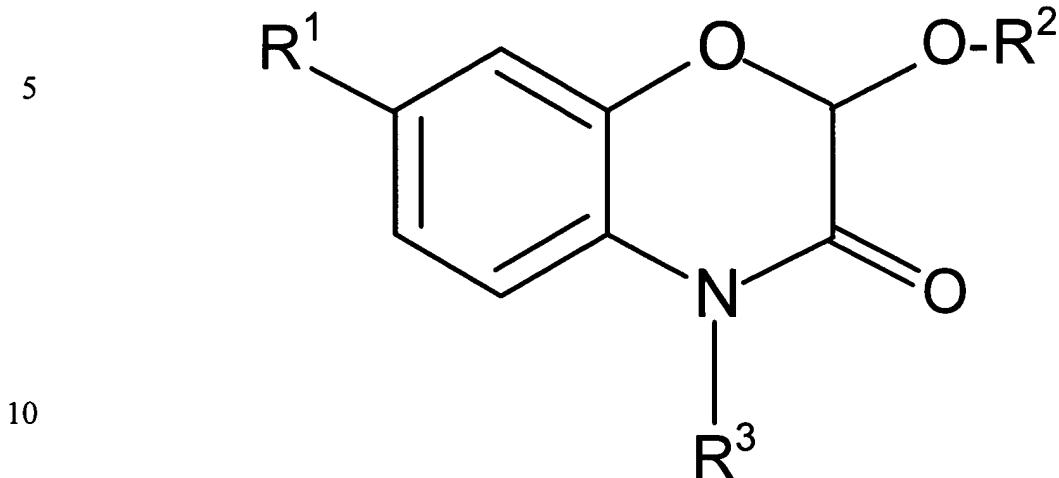
73. A process as defined in claim 71, wherein said immature corn has been grown to a height that does not exceed between about 30 centimeters and about 45 centimeters.

74. A process as defined in claim 71, wherein said immature corn has been grown 5 for less than ten weeks after planting.

75. A process as defined in claim 63, wherein said chemical composition is administered in a manner selected from the group consisting of: (1) orally, in the form of tablets, capsules, suspensions, solutions and other means suitable for ingestion, including 10 sublingual dosage forms; (2) intranasal administration; (3) transmucosal administration; (4) parenteral injection, in the form of subcutaneous, intramuscular, intravenous; (5) implant for sustained release; and (6) transdermal patch.

76. A process as defined in claim 63, wherein therapeutically effective amounts 15 of said chemical composition further comprise adjunctive therapy for a condition selected from the group consisting of arthritis, sleep apnea, fibromyalgia, diabetes, and hyperglycemia.

77. A process for suppressing appetite in mammals by the administration of a therapeutically effective amount of one or more chemical compositions defined as:



Wherein "R¹" is selected from the group consisting of H and OCH₃;

Wherein "R²" is selected from the group consisting of H and Glucose (as a glucoside)

20 Wherein "R³" is selected from the group consisting of H, OH, and OCH₃; or pharmaceutically acceptable salts thereof.

78. A process as defined in claim 77, wherein said administered chemical composition comprises a daily dosage of between about 5 mcg and about 60 mg.

25

79. A process as defined in claim 77, wherein the administered chemical composition comprises a daily dosage of 15 mg.

25

80. A process as defined in claim 77, wherein at least one of said chemical compositions is obtained from one or more monocotyledonous plants selected from the group consisting of corn, wheat, barley, rye, oats, rice, sorghum, millet, bamboo, Job's Tears, barley-like grasses, and wild grasses, by growing the plant to an immature life history stage
5 and harvesting the plant.

81. A process as defined in claim 80, wherein said harvested plant is dried.

82. A process as defined in claim 81, wherein said harvested plant is dried at a
10 temperature in the range of between about 40°C and about 45°C.

83. A process as defined in claim 81, wherein said dried harvested plant contains phenols in total amounts greater than 17.0 mg/gm (dry weight).

15 84. A process as defined in claim 81, wherein said dried harvested plant contains combined amounts of 4-hydroxycinnamic acid and 4-hydroxy-3-methoxycinnamic acid totaling no more than 1.5 mg/gm (dry weight).

20 85. A process as defined in claim 80, wherein said harvested plant is immature corn, *Zea mays*.

86. A process as defined in claim 85, wherein said immature corn has been grown to a height between about 45 centimeters and about 122 centimeters.

25

87. A process as defined in claim 85, wherein said immature corn has been grown to a height that does not exceed between about 30 centimeters and about 45 centimeters.

88. A process as defined in claim 85, wherein said immature corn has been grown
5 for less than ten weeks after planting.

89. A process as defined in claim 77, wherein said chemical composition is administered in a manner selected from the group consisting of: (1) orally, in the form of tablets, capsules, suspensions, solutions and other means suitable for ingestion, including
10 sublingual dosage forms; (2) intranasal administration; (3) transmucosal administration; (4) parenteral injection, in the form of subcutaneous, intramuscular, intravenous; (5) implant for sustained release; and (6) transdermal patch.

90. A process as defined in claim 77, wherein therapeutically effective amounts
15 of said chemical composition further comprise adjunctive therapy for a condition selected from the group consisting of arthritis, sleep apnea, fibromyalgia, diabetes, and hyperglycemia.